

REMARKS

Applicants have amended claims 1 and 3 to correct errors in antecedent basis and to define the invention of claims 1 and 3 more clearly. These amendments do not introduce new matter and should be entered.

Before addressing the rejections imposed by the Examiner, applicants comment on the Examiner's claim interpretation on page 2 of the Action. The Examiner said that he "interprets 'polypropylene resin' to be materials which predominately contain 'propylene' repeating units would include copolymers and blends of propylene resins. The term 'propylene resin' is not limited to "propylene homopolymers' or a single propylene material." However, applicants did not intend the Examiner to read their claims this way, as they had intended that the resin of the second layer defined as "consisting essentially of polypropylene resin" refer to a resin or resins that are for all intents and purposes made up of propylene repeating units (i.e., are essentially polypropylene homopolymers) and do not include any meaningful amounts of copolymer units other than propylene or such units as ester groups or the like. The Examiner's interpretation essentially ignores the phrase "consisting essentially of" and is thus not reasonable in light of the claim language as a whole or the specification of this application. However, so that the Examiner cannot possibly misapprehend applicants' intent, applicants have amended claim 1 to delete the word "resin" from the phrase "consisting essentially of polypropylene resin." This amendment does not narrow the scope of the claim as originally presented but merely allows for the Examiner to interpret the claims in line with applicants' original intent.

Claims 1, 2 and 4 stand rejected under 35 USC 102(e) as anticipated by Shah. In support of this rejection, the Examiner stated:

Shah et al. teach films having a base layer and at least one surface layer. (Claim 25). The base layer comprises polyethylene materials and the surface layer comprises the applicants' claimed combination of components for the expressed purpose of improved processibility (column 2, lines 15-65). The surface layer can

be polypropylene materials such as “propylene homopolymer” (column 11, lines 9+), and the amount of additives such as silicone oil, and fatty acid amides are within the claimed range (column 12, lines 30-50). The films are surface treated as claimed (column 13, lines 37+).

This rejection and its supporting reasoning are respectfully traversed.

First, the Examiner’s application of Shah shows an intrinsic misconstruction of the invention as claimed and of Shah’s disclosure. The “surface layer” claimed is the layer which applicants claim as being surface treated, that is, the *first* layer; the “base” of applicants’ film is the *second* layer. The Examiner applies Shah in reverse of what applicants claim, by arguing that Shah anticipates claims 1, 2 and 4 because Shah’s surface treated layer, that is, the layer of Shah’s film that corresponds to the claimed *first* layer, contains the first and second additive materials that applicants claim to be in the *second* layer. The Examiner’s reference to col. 13, lines 37+, of Shah as a disclosure of surface treatment is insufficient to overcome this insufficiency of Shah because (a) the cited passage does not state which surface is treated and thus does not teach that the base layer of Shah receives surface treatment; and (b) Shah discloses that the surface treatment is used to induce crosslinking, which persons of ordinary skill in the art know does not happen with resins that consist essentially of polypropylene. Shah’s base layer does not include the claimed amounts of the first and second additive materials.

Second, Shah fails to disclose, and in fact teaches away from, the claimed use of small amounts, about 0.02% - 0.08% by weight, of the silicone oil of the first additive material in the second layer. Shah discloses organosiloxane (silicone oil) of 0.1-1% by weight of the skin layer (1000-10,000 ppm), preferably 0.18-0.5% (1800-5000 ppm), well above the claimed upper limit of about 0.08% (800 ppm). A key aspect of Shah’s disclosure is the combination of a relatively large amount of silicone oil and the high loading of antiblock particles to reduce screw slippage (column 2, lines 15-25). By contrast, a goal of this invention is to minimize the amount of migratory additives in order to improve printability and control seasonal/environmental variation

in slip properties and thus maintain stable slip performance, as disclosed at page 2, lines 19-22, of the specification. As a result, this invention produces good slip properties with a minimum amount of migratory additives, contrary to the large amounts of migratory additives taught by Shah.

Third, Shah broadly discloses the use of 0.1%-1% fatty acid amides and refers to a relatively large amount of fatty acid amide, 0.2 – 4.0% as preferable (column 12, lines 37-42). Again, this invention seeks to minimize the amount of migratory additives, so that fatty acid amides are an optional component and are present only up to 0.08%, below Shah's disclosed minimum, if that option is chosen.

For all of these reasons, Shah does not identically disclose the invention of claims 1, 2 and 4 and thus does not anticipate these claims. The rejection of claims 1, 2 and 4 under 35 USC 102(e) on Shah should be withdrawn.

Claims 1-4, 6-8 and 10 stand rejected under 35 USC 103(a) on Shah. In paragraph 11 of the Action the Examiner indicated that Shah et al. "teach films having a base layer and at least one sealable layer." In paragraph 12 of the Action, the Examiner found:

In the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the cited antiblocking agents and lubricants in the films taught by Shah et al. for their known and expected function, in which the amounts of these components would be directly related to the lubricating/antiblocking properties realized.

Since Shah by itself is not evidence that a person of ordinary skill in the art would have been motivated to make the invention as claimed, Shah does not create a *prima facie* case of obviousness that applicants have to rebut.

As explained above, Shah does not disclose films having the base and surface layers as claimed, so the basic premise of the Examiner's rejection is factually incorrect. Applicants note that their film is not heat-sealable, since film surface layers consisting essentially of

polypropylene are known not to be heat-sealable, so that the alleged disclosure in Shah of a sealable layer is immaterial as a teaching of applicants' invention as claimed. Shah does not disclose the claimed amounts of either the silicone oil or the fatty acid amide and says nothing that would have motivated persons of ordinary skill in the art to use less of such additives than Shah discloses. The Examiner has the initial burden of pointing to evidence in the prior art itself that persons of ordinary skill in the art would have been motivated to deviate from the teachings of the prior art to make the inventions, which the Examiner has not even attempted to do. There is no evidence in Shah or in any other prior art reference of record to support the Examiner's conclusion that the claimed amounts of additives would have been considered sufficient to perform their "known and expected" functions, since the prior art discloses the use of larger amounts of such additives. Accordingly, Shah by itself could not have rendered obvious the inventions of applicants' claims 1-4, 6-8 and 10, and this rejection should be withdrawn.

Claims 1-4 and 6-9 stand rejected under 35 USC 103(a) on Mizuno. The Examiner interpreted Mizuno as disclosing a film having a crystalline polypropylene substrate layer and a surface layer comprising a polypropylene component and inorganic particles such as zeolites or non-melting siloxane particles. The Examiner noted that the surface layer may also contain 0.1 to 1 part of silicone oil per part of resin in the surface layer. The Examiner acknowledged that Mizuno does not identically disclose the claimed invention, stating, "The essential difference between the claimed invention and that of [sic] the prior art is the specific combination of antiblocking agents and lubricants." The remainder of the reasoning supporting the rejection on Mizuno was the same as the reasoning employed to support the obviousness rejection on Shah. This rejection and its supporting reasoning are respectfully traversed.

As with Shah, the Examiner has failed to point to any disclosure within Mizuno itself to support the Examiner's conclusion that applicants are claiming conventional additives that would have been obvious to use in the claimed amounts. This logic is tantamount to relying on the

general level of ordinary skill in the art, without supporting evidence, to fill the gap between the invention and the prior art, a rationale which the Federal Circuit rejected in *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), as being contrary to law.

Mizuno's surface layer is not made of a resin that consists essentially of polypropylene. The skin layer of Mizuno's film containing the antiblock additive must be a copolymer (either an EP copolymer or an EPB terpolymer) blended with a specific amount of acid-modified polypropylene. Mizuno calls this layer a "propylene random copolymer" that contains 2 to 10% by weight of ethylene: if less than 2% ethylene is present, the film has poor heat sealability, and if more than 10% ethylene is present, the film tends to be sticky and have low scratch resistance (column 3, lines 29-44). The amounts of ethylene in the surface layer required by Mizuno take it outside of any reasonable interpretation of the claim language requiring the resin of the second layer to consist essentially of polypropylene.

Furthermore, Mizuno, like Shah, discloses the use of a minimum of 0.1% of silicone oil in the skin layer and thus does not suggest films containing at most 0.08% silicone oil in the surface layer.

Finally, persons of ordinary skill in the art familiar with Mizuno's modified surface layer materials would have recognized that Mizuno's films do not maintain adequate slip properties, contrary to the claimed invention. For example, if one were to test hot slip properties (i.e., COF slip properties at elevated temperatures at, e.g., 40°C, 60°C, 80°C, 100°C), one would find that Mizuno's film would fail in maintaining slip properties because terpolymers and copolymers like those disclosed as surface layers in Mizuno tend to heat seal and are used for heat sealing properties. In fact, Mizuno makes a big point of the heat sealability of its films at column 1, lines 55-57; column 3 lines 39-42 and 51-54; and column 6, lines 16-19, for example. Table 2 of this application makes this clear: Example 1, which exemplifies this invention, shows very good hot slip properties up to 100°C; a film similar to Mizuno's, shown in Counter Example 2 (using a

terpolymer skin layer with antiblock package, silicone oil, and fatty amide), fails to exhibit good hot slip performance at 80°C and higher. This would have been expected by persons of ordinary skill in the art because at higher temperatures, such copolymers or terpolymers like those used in Mizuno will start to soften and “heat-seal” during the test. As a result, persons of ordinary skill in the art would not have believed, contrary to the Examiner’s reasoning, that Mizuno’s films could be modified to produce applicants’ claimed films, which are not heat-sealable by virtue of their surface layer compositions.


For all of these reasons, the rejection of claims 1-4 and 6-9 under 35 USC 103(a) on Mizuno should be withdrawn.

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Respectfully submitted,

By: 

Barry E. Bretschneider
Reg. No. 28,055
Morrison & Foerster LLP
1650 Tysons Boulevard, Suite 300
McLean, VA 22102
Telephone: (703) 760-7743
Facsimile: (703) 760-7777